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10/686,277	10/14/2003	Scott C. Moose	85435THC.	7227

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EXAMINER

BAREFORD, KATHERINE A

ART UNIT PAPER NUMBER

1762

DATE MAILED: 04/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,277

Applicant(s)

MOOSE, SCOTT C.

Examiner

Katherine A. Bareford

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Claims 2 and 7 are Canceled

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The amendment of April 4, 2005 has been received and entered.

Specification

1. The objection to the specification as failing to provide proper antecedent basis for the claimed subject matter is withdrawn due to the amendments to the specification of April 4, 2005.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1 and 3-5 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for bead coating, does not reasonably provide enablement for other forms of coating. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

The only description in the specification as to the prevention of the temperature gradient as claimed is when the coating process is bead coating (as in original claims 2, 7). There is no indication that the process would work with any other forms of coating.

Applicant has amended claim 1 to provide that that a solvent based liquid "for bead coating the web" is provided, but in section c) where the coating actually takes place, there is no requirement that the coating be by "bead coating". Therefore, the use of bead coating remains optional as worded.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 3, 5-6, 8 and 10 are rejected under 35 U.S.C. 102(a) or (e) as being anticipated by Quiel et al (US 2002/0164431).

As to the 35 USC 102(e) rejection only: The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of

this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Claims 1 and 6: Quiel teaches a method and apparatus for coating a liquid composition from an applicator to a surface of a moving web. Figure 1B and paragraph [0034]. The web is conveyed along a path through a coating apparatus. Figure 1B and paragraph [0034]. The coating apparatus includes a coating station for applying a coating to the surface of the web. Figure 1B and paragraph [0034]. The coating station includes a backing roller for supporting the web and a coating hopper for depositing a liquid coating on the web. Figure 1B and paragraph [0034]. The web is wrapped in a partial wrap around the backing roller. Figure 1B and paragraph [0034]. The backing roller is provided with a relieved surface. Paragraph [0040] and figures 4A and 4B. The relieved surface has a pattern of circumferential grooves that provides venting of entrained air. Paragraphs [0040] and [0005] and figure 4A. The pattern of the grooves is such that there can be greater than 2 grooves per mm and the grooves can have a depth of 20 to 80 microns. Figure 4A and paragraph [0040]. This inherently provides a geometry and depth such that any temperature gradient in the web caused by the grooves in the backing roller does not disturb the coating applied by the coating apparatus. (This is shown because (1) the applied coating lacks non-uniformity (paragraph [0057]) and (2) the greater than 2 grooves per mm (claim 3 of this case) and a range that includes 63 microns (0.0025 in) in depth (page 4 of specification of this case), is the pattern taught by applicant to prevent disturbance). A source of liquid coating

composition is provided for coating the web. Figure 1B and paragraph [0034]. The liquid is "solvent" based. Paragraph [0056] (the aqueous (water based) coating provides a "solvent" based coating, as water is a known solvent). The web is transported past the coating station, where the liquid composition is applied to the surface of the web from the coating hopper, whereby the coating of the liquid composition is not disturbed by temperature gradients in the web. Figure 1B and paragraphs [0034], [0040] and [0057]. The coating can be bead coating done from a bead coating apparatus. Figure 1B and paragraph [0034].

Claims 3, 8: the pattern of grooves is greater than 2 grooves per mm. Paragraph [0040].

Claims 5 and 10: the width of the relived surface on the backing roller is equal to or greater than the width of the liquid coating to be applied to the web. Paragraph [0040].

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quiel et al (US 2002/0164431).

Quiel teaches all the features of these claims, as discussed in the 35 USC 102 rejection above, except for the groove depth of 90 microns.

However, Quiel does teach that it is desirable to have at least 2 grooves per mm on the backing roller and to have groove depth significantly shallower than that of prior art grooves (about 75 to 150 microns). See paragraph [0014]. Quiel also teaches the use of a groove depth of about 20 to 80 microns. See paragraph [0040]. Furthermore, Quiel indicates that as groove amount is increased from 1 groove per mm and depth is decreased from 130 microns the coating becomes more and more uniform. See paragraphs [0058] and [0059] (Table 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Quiel to perform routine experimentation to optimize the depth and amount of the grooves for the specific coating desired, because Quiel indicates that as groove amount is increased (desirably 2 grooves per mm+) and depth is decreased from the conventional depth the coating becomes more and more uniform, and one of ordinary skill in the art would desire to provide the optimum roller for the amount of uniformity needed.

Response to Arguments

8. Applicant's arguments filed April 4, 2005 have been fully considered but they are not persuasive.

Applicant argues that Quiel solves problems to correct for problems with electrostatic assist and does not disclose any problems arising due to temperature gradients, and thus, it cannot be said that the use of higher frequency circumferential grooves in the backing roller of Quiel solves any more problems than that caused by the use of electronic assist. Applicant further argues that electrostatic and thermal effects are different things and the problems arising when coating aqueous coatings are obviously different than the problems arising when coating solvent based coatings. These are separate issues and a solution of a problem in one coating system does not guarantee that the same problem can be solved in another coating system, applicant argues.

The Examiner has reviewed these arguments, however, the rejection is maintained. As to the use of "solvent" based coatings, it is the Examiner's position that water is a "solvent" to the extent claimed, as a "solvent" is merely a substance capable of dissolving or dispersing one or more other substances, which water is well known to accomplish. Thus, the aqueous coatings described by Quiel are also solvent based. Furthermore, as to the use of "solvent-based" liquid coating composition as part of the apparatus of claims 6 and 8-10, the Examiner notes that the coating composition is not part of the apparatus. As discussed in *In Re Hughes*, 49 F.2nd 478, one cannot properly claim a combination of device and material worked upon. (If the material which

appellant uses here for printing is new to the art, then such material may be patentable; but he may not take advantage of this in applying for a patent upon a mechanism to apply it). As to the electrostatic assist features of Quiel, these are not prevented by the present claims. As a result, as discussed in the 35 USC 102 rejection above, Quiel provides a coating process with a coating material that reads on applicant's as claimed, with a grooved roller with a pattern and geometry that read on that described by applicant. As discussed in MPEP 2112, something which is old does not become patentable upon discovery of a new property (which in this case would be the temperature gradient solution). As a result, although temperature gradient solutions are not mentioned and temperature gradient problems are not mentioned, Quiel would inherently provide for temperature gradient problems to be solved by using the materials in the described coating operation. As further discussed in MPEP 2112.01, as to the apparatus claims, when the structure recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent. As to the process claims, as further discussed in MPEP 2112.02, the prior art device anticipates a claimed process if the device carries out the process during normal operation. This would be the case here, because the use of the grooved roller as described by Quiel in normal bead coating operation will provide the solution to the temperature gradient problems, as the use in Quiel is identical to the use by applicant.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine A. Bareford whose telephone number is (571) 272-1413. The examiner can normally be reached on M-F(6:00-3:30) with the First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Other inquiries can be directed to the Tech Center 1700 telephone number at (571) 272-1700.

Furthermore, information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Kath Bareford".

**KATHERINE BAREFORD
PRIMARY EXAMINER**